

IN THE CLAIMS:

1           1.       (previously presented) In a cellular wireless communication system including a  
2       plurality of cellular wireless communication system network components intercoupled by a wired  
3       network, a method for distributing a file from a network component acting as a sender to a plurality  
4       of network components acting as receivers, the method comprising:

5           the sender establishing a multicast session with the plurality of receivers that service cellular  
6       wireless communications within the cellular wireless communication system;

7           the sender subdividing the file into a plurality of data packets, wherein the file comprises a  
8       software update that, when implemented, alters the manner in which the plurality of receivers  
9       service wireless terminals operating within their respective service areas;

10          the sender multicasting the plurality of data packets to the plurality of receivers;  
11       receiving error reporting at the sender from at least some of the plurality of receivers that failed to  
12       correctly receive all of the plurality of data packets identifying the plurality of data packets not  
13       correctly received; and

14          the sender transmitting a plurality of previously incorrectly received data packets of the  
15       plurality of data packets to the at least some of the plurality of receivers.

1           2.       (original) The method of claim 1, wherein the sender is a base station manager.

1           3.       (original) The method of claim 1, wherein the receivers are base station controllers.

1           4.       (original) The method of claim 1, wherein the receivers are base stations.

1           5.       (original) The method of claim 4, wherein:

2           the base stations operate according to a code division multiple access wireless operating  
3       standard; and

4           the base stations load the file onto a plurality of processing cards contained within the base  
5       stations.

1           6.       (previously presented) The method of claim 5, further comprising the sender and the  
2       plurality of receivers using Forward Error Correction (FEC) to overcome transmission errors.

1           7.       (original) The method of claim 1, wherein error reporting to the sender comprises:  
2           the sender transmitting an error status request to the plurality of receivers; and  
3           at least one of the plurality of receivers responding to the sender with an error message.

1           8.       (original) The method of claim 1, wherein error reporting to the sender comprises:  
2           the sender sends an error status request to a first plurality of receivers during a first time  
3   period;  
4           the sender sends an error status request to a second plurality of receivers during a second  
5   time period; and  
6           wherein the first time period is different from the second time period.

1           9.       (previously presented) The method of claim 1, wherein transmitting a plurality of  
2   previously incorrectly received data packets of the plurality of data packets to the at least some of  
3   the plurality of receivers comprises:  
4           the sender determining a subset of receivers that failed to correctly receive all of the  
5   plurality of data packets;  
6           the sender of the file determining a corresponding set of data packets that were not  
7   previously [in]correctly received by the subset of receivers; and  
8           the sender of the file multicasting the corresponding set of data packets to the subset of  
9   receivers.

10. (previously presented) A system for distributing a file within a wireless communication network, the system comprising:

a sender network component of the wireless communication network, the sender network component comprising:

a processor;

a memory coupled to the processor; and

a network interface coupled to the processor;

a plurality of receiver network components of the wireless communication network that service cellular wireless communications within the cellular wireless communication system, each of the receiver network components comprising:

a processor;

a memory coupled to the processor; and

a network interface coupled to the processor; and

a plurality of software instructions executable by the sender network component and the plurality of receiver network components, the plurality of software instructions comprising:

a first set of sender software instructions that, when executed by the processor of the sender network component, causes the sender network component to establish a multicast session with the plurality of receiver network components;

a first set of receiver software instructions that, when executed by a receiver network component, causes the receiver network component to interact with the sender network component to join the multicast session;

a second set of sender software instructions that, when executed by the processor of the sender network component, causes the sender network component to subdivide the file into a plurality of data packets, wherein the file comprises a software update that, when implemented, alters the manner in which the plurality of receiver network components service wireless terminals operating within their respective service areas;

27 a third set of sender software instructions that, when executed by the processor of the  
28 sender network component causes the sender network component to multicast the plurality of data  
29 packets to the plurality of receivers;

30 a second set of receiver instructions that, when executed by the processor of a  
31 receiver network component that fails to correctly receive all of the plurality of data packets, causes  
32 the receiver network component to error report to the sender network component; and

33 a fourth set of sender software instructions that, when executed by the processor of  
34 the sender network component, causes the sender network component to transmit a plurality of  
35 incorrectly received data packets of the plurality of data packets to the receiver network component  
36 that fails to correctly receive all of the plurality of data packets.

1 11. (previously presented) The system of claim 10, wherein the sender network  
2 component is a base station manager.

1 12. (previously presented) The system of claim 10, wherein the receiver network  
2 components are base station controllers.

1 13. (previously presented) The system of claim 10, wherein the receiver network  
2 components are base stations.

1 14. (original) The system of claim 13, wherein:  
2 the base stations operate according to a code division multiple access wireless operating  
3 standard; and  
4 the base stations load the file onto a plurality of processing cards contained within the base  
5 stations.

1 15. (previously presented) The system of claim 10, further comprising a fifth set of  
2 sender software instructions that, when executed by the processor of the sender network component,  
3 causes the sender network component to use Forward Error Correction (FEC) to overcome  
4 transmission errors.

1           16.     (previously presented) The system of claim 10, further comprising:  
2           a fifth set of sender software instructions that, when executed by the processor of the sender  
3 network component, causes the sender network component to transmit an error status request to the  
4 plurality of receiver network components; and  
5           a sixth set of sender software instructions that, when executed by the processor of the sender  
6 network component, causes the sender network component to receive an error status response from  
7 at least some of the plurality of receiver network components.

1           17.     (currently amended) The system of claim ~~11~~ 16, wherein the fifth set of sender  
2 software instructions further causes:  
3           the sender network component to transmit an error status request to a first plurality of  
4 receiver network components during a first time period;  
5           the sender network component to transmit an error status request to a second plurality of  
6 receiver network components during a second time period; and  
7           wherein the first time period is different from the second time period.

1           18.     (previously presented) The system of claim 10, further comprising a fifth set of  
2 sender instructions that, when executed by the processor of the sender network component, causes  
3 the sender network component to:  
4           determine a subset of receiver network components that failed to correctly receive all of the  
5 plurality of data packets;  
6           determine a corresponding set of data packets that were not correctly received by the subset  
7 of receiver network components; and  
8           multicast the corresponding set of data packets to the subset of receiver network  
9 components.

1           19.     (previously presented) A system for distributing a file within a wireless  
2 communication network, the system comprising:  
3           a server protocol suite operating on a sender network component of the wireless  
4 communication network;  
5           a plurality of receiver protocol suites operating on a plurality of receiver network  
6 components of the wireless communication network, wherein each of the plurality of receiver  
7 network components is communicatively coupled to the sender component and services cellular  
8 wireless communications within a serviced portion of a cellular wireless communication system;  
9           wherein the server protocol suite causes the sender network component to establish a  
10 multicast session with the plurality of receiver network components;  
11           wherein the receiver protocol suite causes the plurality of receiver network components to  
12 interact with the sender network component to join the multicast session;  
13           wherein the server protocol suite causes the sender network component to subdivide the file  
14 into a plurality of data packets, wherein the file comprises a software update that, when  
15 implemented, alters the manner in which the plurality of receiver network components service  
16 wireless terminals operating within their respective service areas;  
17           wherein the server protocol suite causes the sender network component to multicast the  
18 plurality of data packets to the plurality of receiver network components;  
19           wherein the receiver protocol suite causes the plurality of receiver network components to  
20 error report to the sender network component; and  
21           the server protocol suite causes the sender network component to transmit a plurality of  
22 incorrectly received data packets of the plurality of data packets to a receiver network component  
23 that fails to correctly receive all of the plurality of data packets.

1           20.     (previously presented) The system of claim 19, wherein the sender network  
2 component is a base station manager.

1           21.     (previously presented) The system of claim 19, wherein the receiver network  
2 components are base station controllers.

22. (previously presented) The system of claim 19, wherein the receiver network components are base stations.

23. (original) The system of claim 22, wherein:  
the base stations operate according to a code division multiple access wireless operating standard; and  
the base stations load the file onto a plurality of processing cards contained within the base stations.

24. (previously presented) The system of claim 19, wherein the sender network component and the plurality of receiver network components use Forward Error Correction (FEC) to overcome transmission errors.

25. (currently amended) The system of claim 19:  
wherein the server protocol suite causes the sender network component to transmit an error status request to the plurality of receiver network components; and  
wherein the receive protocol suite causes each of the plurality of receiver network components to respond to the ~~sender network components~~ sender network component with an error status response.

26. (previously presented) The system of claim 19, wherein the server protocol suite causes the sender network component to:  
transmit an error status request to a first plurality of receiver network components during a first time period;  
transmit an error status request to a second plurality of receiver network components during a second time period; and  
wherein the first time period is different from the second time period.

1           27.     (previously presented) The system of claim 19, wherein the server protocol suite  
2 causes the sender network component to:  
3           determine a subset of receiver network components that failed to correctly receive all of the  
4 plurality of data packets;  
5           determine a corresponding set of data packets were not correctly received by the subset of  
6 receiver network components; and  
7           multicast the corresponding set of data packets to the receiver network components  
8 comprising the subset of receiver network components that failed to correctly receive all of the  
9 plurality of data packets.